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RAW SEQUENCE LISTING DATE: 02/05/2001
PATENT APPLICATION: US/09/426,776 TIME: 13:26:05

Input Set : A:\es.txt
Output Set: N:\CRF3\02052001\I426776.raw

3 <110> APPLICANT: DING, Jeak Ling
4 TAN, Nguan Soon
5 HO, Bow
6 LAM, Toong Jin
8 <120> TITLE OF INVENTION: ISOLATED NUCLEIC ACIDS ENCODING A SECRETORY SIGNAL FOR EXPRESSION AND
9 SECRETION OF HETEROLOGOUS RECOMBINANT PROTEINS
11 <130> FILE REFERENCE: 1781-0178P
13 <140> CURRENT APPLICATION NUMBER: US 09/426,776
14 <141> CURRENT FILING DATE: 1999-10-26
16 <160> NUMBER OF SEQ ID NOS: 22
18 <170> SOFTWARE: PatentIn version 3.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 29
22 <212> TYPE: DNA
23 <213> ORGANISM: Artificial
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Chloramphenicol acetyltransferase (CAT) gene forward primer derived
27 from bacteria
29 <400> SEQUENCE: 1
30 gaaatctgc tggagaaaaa aatcactgg 29
33 <210> SEQ ID NO: 2
34 <211> LENGTH: 29
35 <212> TYPE: DNA
36 <213> ORGANISM: Artificial
38 <220> FEATURE:
39 <223> OTHER INFORMATION: Chloramphenicol acetyltransferase (CAT) gene forward primer derived
40 from bacteria
42 <400> SEQUENCE: 2
43 gcatcgccg tgccttaaaa aaattacgc 29
46 <210> SEQ ID NO: 3
47 <211> LENGTH: 21
48 <212> TYPE: DNA
49 <213> ORGANISM: Artificial
51 <220> FEATURE:
52 <223> OTHER INFORMATION: OaVtgExon2 reverse primer derived from Oreochromis aureus vitellogenin
53 gene exon 2
55 <400> SEQUENCE: 3
56 ccaagttgga ctggcccccc a 21
59 <210> SEQ ID NO: 4
60 <211> LENGTH: 19
61 <212> TYPE: DNA
62 <213> ORGANISM: Artificial
64 <220> FEATURE:
65 <223> OTHER INFORMATION: EGFP reverse primer derived from Aequoria victoria green fluorescent
66 protein
68 <400> SEQUENCE: 4
69 ccctcgccgg acacgctga 19

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72 <210> SEQ ID NO: 5
 73 <211> LENGTH: 29
 74 <212> TYPE: DNA
 75 <213> ORGANISM: Artificial
 77 <220> FEATURE:
 78 <223> OTHER INFORMATION: B-lactamase forward primer derived from bacteria
 80 <400> SEQUENCE: 5
 81 ccgggatcca gaaacgtgg tggaaagtaa 29
 84 <210> SEQ ID NO: 6
 85 <211> LENGTH: 29
 86 <212> TYPE: DNA
 87 <213> ORGANISM: Artificial
 89 <220> FEATURE:
 90 <223> OTHER INFORMATION: B-lactamase reverse primer derived from bacteria
 92 <400> SEQUENCE: 6
 93 gcgcccgta ccaatgttta atcagtggag 29
 96 <210> SEQ ID NO: 7
 97 <211> LENGTH: 29
 98 <212> TYPE: DNA
 99 <213> ORGANISM: Artificial
 101 <220> FEATURE:
 102 <223> OTHER INFORMATION: Forward primer from BspSS
 104 <400> SEQUENCE: 7
 105 gggtcatag gggttgttga cttagcttt 29
 108 <210> SEQ ID NO: 8
 109 <211> LENGTH: 30
 110 <212> TYPE: DNA
 111 <213> ORGANISM: Artificial
 113 <220> FEATURE:
 114 <223> OTHER INFORMATION: BamGal forward primer with BamHI restriction site and some beta-galactosidase sequence derived from bacteria
 115 <400> SEQUENCE: 8
 118 ccatggatcc cgtgatttcg ttgcggct 30
 121 <210> SEQ ID NO: 9
 122 <211> LENGTH: 26
 123 <212> TYPE: DNA
 124 <213> ORGANISM: Artificial
 126 <220> FEATURE:
 127 <223> OTHER INFORMATION: EagGal reverse primer with EagI restriction site
 129 <400> SEQUENCE: 9
 130 ggcacggccg ggcagacatg gcctgc 26
 133 <210> SEQ ID NO: 10
 134 <211> LENGTH: 21
 135 <212> TYPE: PRT
 136 <213> ORGANISM: Oreochromis aureus
 138 <400> SEQUENCE: 10
 140 Met Arg Val Leu Val Leu Ala Leu Ala Val Ala Leu Ala Val Gly Asp
 141 1 5 10 15
 143 Gly Ser Asn Leu Gly

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147 <210> SEQ ID NO: 11
148 <211> LENGTH: 80
149 <212> TYPE: DNA
150 <213> ORGANISM: Oreochromis aureus
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153 attcacatcc acaaggccatg agggtggctt tactatctt tgcgttgtt ccccaatggg      60
155 gggaccatc caacttgggg
158 <210> SEQ ID NO: 12
159 <211> LENGTH: 204
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Junction of Vtgss (derived from Oreochromis aureus) and CrFCES
165 (Carcinoscorpius rotundicauda ES - EcoRI-SalI flanking fragment of
166 Factor C) determined by sequencing using the Ac5 forward primer and
167 pCDNA3.1/BGH reverse primer
169 <400> SEQUENCE: 12
170 gtggaaattt ccacatgtca ccggactcgat atcaattcac atccaccagg catqagggtg      60
172 ctgttactatc cttttgcgtt ggctctcgca gtgggggacc agtccaacctt gggggatcta    120
174 ggcttgcgtt atqaaacagat ttccatgtgt aagtgtggcg atccaggcta tgtgttcaac    180
176 attccatgtga aacaatgtac atac
179 <210> SEQ ID NO: 13
180 <211> LENGTH: 51
181 <212> TYPE: PRT
182 <213> ORGANISM: Artificial
184 <220> FEATURE:
185 <223> OTHER INFORMATION: VtgCrFCES protein - Vtg derived from Oreochromis aureus and CrFCES
186 derived from Carcinoscorpius rotundicauda ES - EcoRI-SalI flanking
187 fragment of Factor C
189 <400> SEQUENCE: 13
191 Met Arg Val Leu Val Leu Ala Leu Ala Val Ala Val Gly Asp
192   5           10          15
194 Gln Ser Asn Leu Gly Asp Leu Gly Leu Cys Asp Glu Thr Arg Phe Glu
195   20          25          30
197 Cys Lys Cys Gly Asp Pro Gly Tyr Val Phe Asn Ile Pro Val Lys Gln
198   35          40          45
200 Cys Tyr Phe
201   50
204 <210> SEQ ID NO: 14
205 <211> LENGTH: 152
206 <212> TYPE: DNA
207 <213> ORGANISM: Artificial
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Part of the Vtgss-CAT (Vtgss from Oreochromis aureus - CAT of bacterial
211 origin) fusion in the pBSVtgCAT vector
213 <400> SEQUENCE: 14
214 atcgataaagc ttgtatgtac cggactcaga tcaattcaca tccaccaggcc atgagggtgc      60
216 ttgtactacg tcttgcgtt gctctcgcaatggggatctgc

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218 tggagaaaaaa aatcaactgga tataaccaccc tt          152
221 <210> SEQ ID NO: 15
222 <211> LENGTH: 59
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Part of the Vtgss-CAT (Vtgss from Oreochromis aureus - CAT of bacterial
228     origin) fusion in the pBSVtgCAT vector
230 <400> SEQUENCE: 15
231 ggcggggcgt aatttttta aggcacggcc gatgcgcacgg tatcgataac ttgatatcg      59
234 <210> SEQ ID NO: 16
235 <211> LENGTH: 34
236 <212> TYPE: PRT
237 <213> ORGANISM: Artificial
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Part of the Vtgss-CAT (Vtgss from Oreochromis aureus - CAT of bacterial
241     origin) fusion in the pBSVtgCAT vector
243 <400> SEQUENCE: 16
245 Met Arg Val Leu Val Leu Ala Leu Ala Val Ala Val Gly Asp
246 1           5           10          15
248 Gln Ser Asn Leu Gly Asp Leu Leu Gln Lys Lys Val Thr Gly Trp Thr
249          20           25          30
251 Thr Val
254 <210> SEQ ID NO: 17
255 <211> LENGTH: 3
256 <212> TYPE: PRT
257 <213> ORGANISM: Artificial
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Part of the Vtgss-CAT (Vtgss from Oreochromis aureus - CAT of bacterial
261     origin) fusion in the pBSVtgCAT vector
263 <400> SEQUENCE: 17
265 Gly Gly Ala
266 1
269 <210> SEQ ID NO: 18
270 <211> LENGTH: 66
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Part of the nucleotide sequence adjoining Vtgss (derived from Oreochromis
276     aureus) and CAT (derived from bacteria) in the vector psp-VtgCAT
278 <400> SEQUENCE: 18
279 ggcggggcgt aatttttta aggcacggcc gatgcgcacgg tatcgatatt gttacaacac      60
281 cccaac          66
284 <210> SEQ ID NO: 19
285 <211> LENGTH: 155
286 <212> TYPE: DNA
287 <213> ORGANISM: Artificial
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Nucleotide sequence of the Vtg-EGFP (Vtg derived from Oreochromis

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291 aureus - EGFP derived from Aequoria victoria) fusion in the vector
 292 pVtgEGFP
 294 <400> SEQUENCE: 19
 295 gcttagcgcta cccgactcag atcaattcac atccaccaggc catgggggtg ctttgtactag 60
 297 ctcttgcgtg ggcttcgcga gtgggggacc agtccaactt gggggatcca ccggtegcaca 120
 299 ccatggtgag caaggcgctg gtgcagaact ccggg 155
 302 <210> SEQ ID NO: 20
 303 <211> LENGTH: 38
 304 <212> TYPE: PRT
 305 <213> ORGANISM: Artificial
 307 <220> FEATURE:
 308 <223> OTHER INFORMATION: Amino acid sequence of the Vtg-EGFP (Vtg derived from Oreochromis
 309 aureus - EGFP derived from Aequoria victoria) fusion in the vector
 310 pVtgEGFP
 312 <400> SEQUENCE: 20
 314 Met Arg Val Leu Val Leu Ala Val Ala Val Leu Ala Val Gly Asp
 315 1 5 10 15
 317 Gln Ser Asn Leu Gly Asp Pro Pro Val Ala Thr Met Val Ser Lys Gly
 318 20 25 30
 320 Val Val Gln Asn Ser Gly
 321 35
 324 <210> SEQ ID NO: 21
 325 <211> LENGTH: 204
 326 <212> TYPE: DNA
 327 <213> ORGANISM: Artificial
 329 <220> FEATURE:
 330 <223> OTHER INFORMATION: Nucleotide sequence at the junction of Vtgss (derived from Oreochromis
 331 aureus) and B-lactamase (derived from bacteria) in pBADVtgblactKana
 333 <400> SEQUENCE: 21
 334 ctcttactgtt tctccatacc cggttttttg ggcttaacagg aggaattaac catgggggtg 60
 336 ctttgtactag ctcttgcgtg ggcttcgcga gtgggggacc agtccaactt gggggatcca 120
 338 gaaacyctgg tqaagtaaa agatgtgaa gatcagttgg gtycacqagt gggttacatc 180
 340 gaactggatc tcaacacgcyg taag 204
 343 <210> SEQ ID NO: 22
 344 <211> LENGTH: 51
 345 <212> TYPE: PRT
 346 <213> ORGANISM: Artificial
 348 <220> FEATURE:
 349 <223> OTHER INFORMATION: Amino acid sequence at the junction of Vtgss (derived from Oreochromis
 350 aureus) and B-lactamase (derived from bacteria) in pBADVtgblactKana
 352 <400> SEQUENCE: 22
 354 Met Arg Val Leu Val Leu Ala Val Ala Val Leu Ala Val Gly Asp
 355 1 5 10 15
 357 Gln Ser Asn Leu Gly Asp Pro Glu Thr Leu Val Lys Val Lys Asp Ala
 358 20 25 30
 360 Glu Asp Gln Leu Gly Ala Arg Val Gly Tyr Ile Glu Leu Asp Leu Asn
 361 35 40 45
 363 Ser Gly Lys
 364 50

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/426,776

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